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ASH GROVE CEMENT WEST, INC.

Inter-Office Memorandum

Date: January 22, 1990

To: ~~Steve Sheridan~~

From: ~~Ken Rone~~

Copies to: Dick Cooke
Stan WEbb

Subject: Power Transformation
West Terminal

As soon as we can determine that the connected power requirement for the West Terminal unloader replacement will exceed our present power supply, we need to request the needed expansion from Seattle City Light (SCL). SCL is generally ready to accommodate any increase in service at their own expense but in this unique case they may be a bit skeptical and reluctant. As the history shown below describes, it has been a litany of false starts and changed plans. We need to be aware of this, so that we can be persistent and get what we want. I see this as the perfect opportunity to get rid of the step-down, step-up absurdity we presently operate.

I recommend the first option I show below because it requires no cost to the AGCW/LSNW partnership. What is unique about it is that our metered usage (secondary metering) will be at two different voltages. Our account rep may find out that service can only be offered at the same voltage (as it is now). More likely, this will be an acceptable proposal, but I included the other, more costly, alternatives just in case.

HISTORY

NOVEMBER 1967 - 26 KV underground service established to two 26,000/277/480 transformers. The dock service was sized for 2,000 HP.

1973 - Someone found out that they were paying for a 2,000 HP service when the only needed 391 HP. SCL agreed to reduce their minimum.

DECEMBER 1978 - Requested that SCL convert to 26 KV/4 KV service with 7,500 connected HP as part of a grinding plant expansion. SCL made plans for the conversion.

NOVEMBER 1979 - Transformers at the dock were removed.

DECEMBER 1979 - Kaiser advised SCL they had changed the scope of the project and would temporarily require a 1,500 KW transformer with 480 V service for barge unloading.

FEBRUARY 1980 - Kaiser advised that 4 KV service would not be required. SCL had to find a buyer for the 7,500 KW transformer they had already purchased.

JANUARY 1990 - I advised SCL that the 480 V dock service was being stepped up to 4160 V. They were not aware of this.

OPTIONS

1. (Recommended) Replace dock transformer with one of sufficient capacity to supply the unloader at 4160 V. SCL will supply transformer and secondary metering. No change to plant service.

2. Switch to primary metering at 26 KV. Buy out existing 26,000/277/480 transformer for plant service. Purchase a 26,000/4160 transformer of sufficient capacity to provide for new unloader.

3. Secondary metering at 4160 V. SCL to install a 26000/4160 transformer of sufficient capacity to supply the new unloader. AGCW to purchase a 4160/480 transformer for plant service. SCL to supply a 26,000/4160 transformer for plant service.

4. Secondary metering at 480V. AGCW to purchase a 480V/4160V step up transformer to supply new unloader. SCL to install a 26,000/277/480 transformer of sufficient capacity to supply new unloader. No change to plant service.

As always I will appreciate your review and advise on these ideas. This is a moderately complicated issue which could delay our project if not addressed early.